AMENDMENTS TO THE CLAIMS

1. (Currently amended) Infrared (IR) measuring device, for essentially simultaneous, qualitative and quantitative determination of components in nonaqueous and aqueous systems, comprising:

at least one measuring unit having at least one ATR body and at least one infrared light source, wherein the at least one ATR body has at least two plane, essentially parallel boundary surfaces and is transparent or partially transparent to ~~the~~ measuring radiation and has a refractive index which is higher than that of the medium to be investigated adjacent to at least one boundary surface-where the ~~IR~~ measuring radiation is middle infrared radiation (MIR) and can undergo attenuated total reflection at least six times on at least one of the plane, parallel boundary surfaces-of the at least one ATR body, wherein the at least one infrared light source includes one or more quantum cascade lasers that can emit electromagnetic radiation of at least one defined frequency or of at least one defined frequency band.

2. (Currently amended) Infrared measuring device according to Claim 1, wherein the evaluation unit includes ~~including~~ at least one computer-aided evaluation unit ~~or at least one detector~~.

3. (Currently amended) Infrared measuring device according to Claim ~~2~~ 1, wherein the evaluation unit can be replaced by a second or further evaluation units.

4. (Canceled)

5. (Previously presented) Infrared measuring device according to Claim 1, wherein the plane, essentially parallel boundary surfaces are essentially not metal-coated.

6. (Canceled)

7. (Currently amended) Infrared (IR) measuring device, for essentially simultaneous, qualitative and quantitative determination of components in nonaqueous and aqueous systems, comprising:

at least one measuring unit having at least one ATR body and at least one infrared light source, wherein the at least one ATR body has at least two plane, essentially parallel boundary surfaces and is transparent or partially transparent to measuring radiation and has a refractive index which is higher than that of the medium to be investigated adjacent to at least one boundary surface-where the measuring radiation is middle infrared radiation

(MIR) and can undergo attenuated total reflection at least six times on at least one of the plane, parallel boundary surfaces-of the at least one ATR body, wherein the infrared light source includes one or several quantum cascade lasers ~~Infrared measuring device according to Claim 4,~~ wherein two or more of the quantum cascade lasers can emit electromagnetic radiation of different frequencies~~, especially each with predetermined, defined intensity,~~ and/or of different frequency bands, ~~especially~~ in the middle infrared region~~, and/or especially each with predetermined, defined intensity~~.

8. (Currently amended) Infrared measuring device according to Claim 7, wherein the ~~at least~~ two or more quantum cascade lasers can simultaneously or almost simultaneously emit the electromagnetic radiation of the different frequencies, ~~especially each with predetermined, defined intensity,~~ and/or of the different frequency bands~~, especially in the middle infrared region, and/or especially each with predetermined, defined intensity~~.

9. (Currently amended) Infrared (IR) measuring device, for essentially simultaneous, qualitative and quantitative determination of components in nonaqueous and aqueous systems, comprising:

at least one measuring unit having at least one ATR body and at least one infrared light source, wherein the at least one ATR body has at least two plane, essentially parallel boundary surfaces and is transparent or partially transparent to measuring radiation and has a refractive index which is higher than that of the medium to be investigated adjacent to at least one boundary surface where the measuring radiation is middle infrared radiation (MIR) and can undergo attenuated total reflection at least six times on at least one of the plane, parallel boundary surfaces-of the at least one ATR body, ~~Infrared measuring device according to Claim 1,~~ including one or ~~several~~ more quantum cascade lasers that can emit electromagnetic radiation of different frequencies~~, especially each with predetermined, defined intensity,~~ and/or of different frequency bands~~, especially in the middle infrared region, and/or especially each with predetermined, defined intensity,~~ in a time sequence.

10. (Currently amended) Infrared (IR) measuring device, for essentially simultaneous, qualitative and quantitative determination of components in nonaqueous and aqueous systems, comprising:

at least one measuring unit having at least one ATR body and at least one infrared light source, wherein the at least one ATR body has at least two plane, essentially

parallel boundary surfaces and is transparent or partially transparent to measuring radiation and has a refractive index which is higher than that of the medium to be investigated adjacent to at least one boundary surface where the measuring radiation is middle infrared radiation (MIR) and can undergo attenuated total reflection at least six times on at least one of the plane, parallel boundary surfaces-of the at least one ATR body, ~~Infrared measuring device according to Claim 1, further~~ including at least one quantum cascade laser that can emit electromagnetic radiation in the form of pulses with defined duration~~, especially each with predetermined, defined intensity~~.

11. (Currently amended) Infrared measuring device according to Claim 10, wherein the duration of the pulses~~, especially in the case of electromagnetic radiation with different frequencies or frequency bands has a different~~ differs in length and/or ~~in~~ the intensity of the pulses ~~is of different~~ differs in magnitude.

12. (Previously presented) Infrared measuring device according to Claim 10, wherein different frequencies or frequency bands of electromagnetic radiation originating from the at least one quantum cascade laser can be emitted sequentially or in any arbitrary sequence.

13. (Currently amended) Infrared measuring device according to Claim 12, wherein the ~~electromagnetic~~ measuring radiation and/or its intensity can be detected according to a multiplex pattern~~, especially~~ in a wavelength-specifically controllable, pulsewise emittable manner, and/or according to a multiplex pattern~~, especially corresponding to the multiplex pattern~~ of the ~~pulsed~~ measuring radiation in a pulsed form.

14. (Currently amended) Infrared (IR) measuring device, for essentially simultaneous, qualitative and quantitative determination of components in nonaqueous and aqueous systems, comprising:

at least one measuring unit having at least one ATR body and at least one infrared light source, wherein the at least one ATR body has at least two plane, essentially parallel boundary surfaces and is transparent or partially transparent to measuring radiation and has a refractive index which is higher than that of the medium to be investigated adjacent to at least one boundary surface where the measuring radiation is middle infrared radiation (MIR) and can undergo attenuated total reflection at least six times on at least one of the plane, parallel boundary surfaces-of the at least one ATR body, and ~~Infrared measuring device according to Claim 1,~~ including a measuring cell comprising ~~an especially~~ a pressure-

resistant, flow-through cell or ~~an especially~~ a pressure-resistant flow-through cell, which can be reversibly closed in the inlet and outlet region, or wherein the measuring cell or the ATR body is ~~an especially~~ a pressure-resistant immersion probe.

15. (Previously presented) Infrared measuring device according to Claim 1, wherein the ATR body represents at least one wall of a measuring cell or a part thereof or represents the measuring cell.

16. (Previously presented) Infrared measuring device according to Claim 1, wherein the ATR body is made of a material selected from the group consisting of diamond, sapphire, cadmium telluride, thallium bromide/iodide, silicon, germanium, zinc selenide, zinc sulfide, magnesium difluoride, cesium iodide, silver chloride, calcium difluoride, potassium bromide, sodium chloride, a material transparent to infrared radiation, a polymeric material with a refractive index of greater than or equal to 1.5 and polyethylene.

17. (Currently amended) Infrared measuring device according to Claim 1 further including an evaluation unit that implements one or more factorial analyses, multiple least square algorithms or neural network analyses based on the signals entering the detector~~, for the purpose of their evaluation~~.

18. (Currently amended) Infrared measuring device according to Claim 1, wherein at least the ATR body or the measuring unit ~~can be or~~ is thermostated.

19. (Currently amended) Infrared (IR) measuring device, for essentially simultaneous, qualitative and quantitative determination of components in nonaqueous and aqueous systems, comprising:

at least one measuring unit having at least one ATR body and at least one infrared light source, wherein the at least one ATR body has at least two plane, essentially parallel boundary surfaces and is transparent or partially transparent to measuring radiation and has a refractive index which is higher than that of the medium to be investigated adjacent to at least one boundary surface where the measuring radiation is middle infrared radiation (MIR) and can undergo attenuated total reflection at least six times on at least one of the plane, parallel boundary surfaces of the at least one ATR body, ~~Infrared measuring device according to Claim 1,~~ wherein the at least one measuring unit is pressure-resistant~~, especially to pressures up to 100 bar~~.

20. (Currently amended) Infrared measuring device according to Claim 1, wherein the ATR body can be placed at least on one boundary surface, which can be exposed to a medium to be analyzed, and includes a coating, which is transparent to the ~~measuring radiation, especially to~~ an evanescent field of the measuring radiation.

21. (Currently amended) Infrared measuring device according to Claim 20, wherein the coating has a thickness which is either smaller than~~, preferably~~ half of the wavelength of the ~~infrared~~ measuring radiation used or ~~, and it is especially~~ in the range from about 2 nm to about 25 μm.

22. (Previously presented) Infrared measuring device according to Claim 20, wherein the coating has a thickness in the range of one-fourth of the wavelength of the measuring radiation used.

23. (Previously presented) Infrared measuring device according to Claim 20, wherein the coating has an ATR body material layer, especially a diamond layer, and the coated ATR body comprises zinc selenide and/or zinc sulfide.

24. (Currently amended) Infrared (IR) measuring device, for essentially simultaneous, qualitative and quantitative determination of components in nonaqueous and aqueous systems, comprising:

at least one measuring unit having at least one ATR body and at least one infrared light source, wherein the at least one ATR body has at least two plane, essentially parallel boundary surfaces and is transparent or partially transparent to measuring radiation and has a refractive index which is higher than that of the medium to be investigated adjacent to at least one boundary surface where the measuring radiation is middle infrared radiation (MIR) and can undergo attenuated total reflection at least six times on at least one of the plane, parallel boundary surfaces of the at least one ATR body; and

~~Infrared measuring device according to Claim 1, including~~ at least one computer-aided evaluation unit or at least one detector~~, Infrared measuring device according to Claim 2, wherein the detector~~ that includes a photoacoustic detector.

25. (Currently amended) A method of performing a chemical analysis, the method comprising using the measuring device of Claim 1 to determine~~, especially essentially simultaneous,~~ qualitatively and/or quantitatively the presence of one or more components, selected from the group consisting of saccharides, urea, creatinine, triglycerides,

carbon dioxide, protein, alcohols and/or phosphoric acid esters, in nonaqueous or aqueous systems.

26. (Previously presented) The method of Claim 25, where one of beer, wine, fruit juice, spirits or soft drinks is used as an aqueous system.

27. (Previously presented) The method of Claim 25, where one of urine and/or feces is used as an aqueous system.

28. (Previously presented) The method of Claim 25, where one of lymph, saliva and/or blood is used as an aqueous system.

29. (Previously presented) The method of Claim 25, where the washing fluid obtained during dialysis is used as an aqueous system.

30. (Previously presented) The method of Claim 25, where process fluid, waste water or washing liquor is used as an aqueous system.

31. (Previously presented) A method of using the infrared measuring device according to Claim 1, including using the infrared measuring device for the qualitative and/or quantitative determination of components in fruits and vegetables.

32. (Previously presented) A method of using the infrared measuring device according to Claim 1, including using the infrared measuring device for the qualitative and/or quantitative determination of components in milk and dairy products.

33. (Currently amended) Urinal, or a urinal pan, comprising:

at least one ATR body, with at least two plane, ~~especially~~ essentially parallel boundary surfaces, which is transparent to middle infrared radiation (MIR), and has a refractive index which is higher than that of a medium to be investigated, which is adjacent to at least one boundary surface, into which a laser beam and/or at least one discharge line, into which a measuring unit containing the at least one ATR body with at least two plane, ~~especially~~ essentially parallel boundary surfaces, which is transparent or partially transparent to ~~the~~ a measuring radiation, and has a refractive index, which is higher than that of the medium to be investigated adjacent to at least one boundary surface, into which a laser beam can be coupled.

34. (Currently amended) Urinal according to Claim 33, including

an infrared measuring device having at least one measuring unit having the at least one ATR body and at least one infrared light source, wherein the measuring unit contains the at least one ATR body, which has at least two plane, essentially parallel boundary surfaces, which are transparent or partially transparent to the measuring radiation and which have a refractive index which is higher than that of the medium to be investigated adjacent to at least one boundary surface, where the ~~IR~~ measuring radiation is middle infrared radiation (MIR) and can undergo attenuated total reflection at least six times on at least one of the plane, parallel boundary surfaces of the at least one ATR body, wherein the at least one ATR body is in working connection with at least one quantum cascade laser and/or a detector and/or an evaluation unit.

35. (Currently amended) Toilet, including a toilet bowl, comprising:

at least one ATR body with at least two plane, ~~especially~~ essentially parallel boundary surfaces, which is transparent to middle infrared radiation (MIR), and which has a refractive index, which is higher than that of a medium to be investigated, which is adjacent to at least one boundary surface into which a laser beam can be coupled; and/or at least a drain pipe ~~drainpipe~~, into which a measuring unit, especially a measuring cell, containing the at least one ATR body with at least two plane, ~~especially~~ essentially parallel boundary surfaces, which is transparent or partially transparent to ~~the~~ a measuring radiation and has a refractive index which is higher than that of a medium to be investigated, which is adjacent to at least one boundary surface is placed, into which a laser beam can be coupled.

36. (Currently amended) Toilet according to Claim 35, comprising

an infrared measuring device having at least one measuring unit having the at least one ATR body and at least one infrared light source, wherein the measuring unit contains the at least one ATR body, which has at least two plane, essentially parallel boundary surfaces, which are transparent or partially transparent to the measuring radiation and which have a refractive index which is higher than that of the medium to be investigated adjacent to at least one boundary surface, where the ~~IR~~ measuring radiation is middle infrared radiation (MIR) and can undergo attenuated total reflection at least six times on at least one of the plane, parallel boundary surfaces of the at least one ATR body, wherein the at least one ATR body is in working connection with at least one quantum cascade laser and/or a detector and/or an evaluation unit.

37. (Currently amended) Urinal, including a urinal pan, comprising:

at least one ATR body with at least two plane, ~~especially~~ essentially parallel boundary surfaces, which is transparent to middle infrared radiation (MIR), and which has a refractive index, which is higher than that of a medium to be investigated, which is adjacent to at least one boundary surface into which a light beam, having a continuous spectrum or a multiwavelength spectrum, can be coupled; and/or at least a drain pipe, into which a measuring unit, ~~especially measuring cell,~~ containing the at least one ATR body with at least two plane, ~~especially~~ essentially parallel boundary surfaces, which is transparent or partially transparent to ~~the~~ a measuring radiation and has a refractive index which is higher than that of a medium to be investigated which is adjacent to at least one boundary surface is placed, into which a light beam, having a continuous spectrum or a multiwavelength spectrum can be coupled.

38. (Currently amended) Urinal according to Claim 37, including

an infrared measuring device having at least one measuring unit having the at least one ATR body and at least one infrared light source, wherein the measuring unit contains the at least one ATR body, which has at least two plane, essentially parallel boundary surfaces, which are transparent or partially transparent to the measuring radiation and which have a refractive index which is higher than that of the medium to be investigated adjacent to at least one boundary surface, where the ~~IR~~ measuring radiation is middle infrared radiation (MIR) and can undergo attenuated total reflection at least six times on at least one of the plane, parallel boundary surfaces of the at least one ATR body, wherein the at least one ATR body is in working connection with at least one light source, which emits a continuous spectrum or a multiwavelength spectrum, especially in the middle infrared region, and/or with a detector and/or with an evaluation unit.

39. (Currently amended) Toilet, including a toilet bowl, comprising:

at least one ATR body with at least two plane, ~~especially~~ essentially parallel boundary surfaces, which is transparent to middle infrared radiation (MIR), and which has a refractive index, which is higher than that of a medium to be investigated, which is adjacent to at least one boundary surface, into which a light beam, having a continuous spectrum or a multiwavelength spectrum can be coupled; and/or at least one drain pipe ~~drainpipe~~, into which a measuring unit~~, especially a measuring cell,~~ containing the at least one ATR body with at least two plane, ~~especially~~ essentially parallel boundary surfaces, which is transparent or partially transparent to ~~the~~ a measuring radiation and has a refractive index which is higher

than that of a medium to be investigated, which is adjacent to at least one boundary surface is placed, into which a light beam, having a continuous spectrum or a multiwavelength spectrum can be coupled.

40. (Currently amended) Toilet according to Claim 39, especially including

an infrared measuring device having the at least one ATR body and at least one infrared light source, wherein the measuring unit contains the at least one ATR body, which has at least two plane, essentially parallel boundary surfaces, which are transparent or partially transparent to the measuring radiation and which have a refractive index which is higher than that of the medium to be investigated adjacent to at least one boundary surface, where the ~~IR~~ measuring radiation is middle infrared radiation (MIR) and can undergo attenuated total reflection at least six times on at least one of the plane, parallel boundary surfaces of the at least one ATR body, wherein the at least one ATR body is in working connection with at least one light source, which emits a continuous spectrum or a multiwavelength spectrum, especially in the middle infrared region, and/or with a detector and/or with an evaluation unit.

41. (Currently amended) Hollow body, for use in a needle, a tube or an immersion probe, with nontransparent side walls, especially with a tapering end, comprising:

an ATR body applied tightly in one end region or at one end, especially at the tapered end of the hollow body, or on a surface of the hollow body, which has at least two plane, essentially parallel boundary surfaces, and which is transparent or partially transparent to middle infrared radiation (MIR), and has a refractive index which is higher than that of a medium to be investigated, which is adjacent to at least one boundary surface, where at least one laser beam can be coupled to the ATR body through the inside of the hollow body and at least one ~~IR~~ infrared measuring beam can undergo attenuated total reflection at least six times along the measuring section, on at least one of the plane, parallel boundary surfaces of the ATR body.

42. (Previously presented) A method of using the hollow body according to Claim 41, including using the hollow body as a measuring unit or as a component of a measuring unit of an infrared measuring device.

43. (Previously presented) A method of using the hollow body, of Claim 41, including using the hollow body for the invasive determination of components in body fluids, especially in the blood of living organisms.

44. (Currently amended) Cannula, especially a stent, comprising:

at least one measuring cell, especially a flow-through cell, containing at least one ATR body with at least two plane, essentially parallel, boundary surfaces which is transparent or partially transparent to middle infrared radiation (MIR), and which has a refractive index which is higher than that of the medium being investigated, which is adjacent to at least one of the boundary surfaces, into which at least one beam of a quantum cascade laser can be coupled and at least one ~~IR~~ infrared measuring beam can undergo attenuated total reflection at least six times along the measuring section, on at least one of the plane, parallel boundary surfaces of the ATR body; and/or at least one hollow body.

45. (Currently amended) Cannula according to Claim 44, comprising

an infrared measuring device having the at least one ATR body and at least one infrared light source, wherein the measuring unit contains the at least one ATR body, which has at least two plane, essentially parallel boundary surfaces, which are transparent or partially transparent to the measuring ~~radiation~~ beam and which have a refractive index which is higher than that of the medium to be investigated adjacent to at least one boundary surface, where the ~~IR~~ measuring ~~radiation~~ beam ~~is~~ contains middle infrared radiation (MIR) and can undergo attenuated total reflection at least six times on at least one of the plane, parallel boundary surfaces of the at least one ATR body, wherein the at least one ATR body is in working connection with at least one quantum cascade laser and/or a detector and/or an evaluation unit.

46. (Previously presented) A method of using the cannula of Claim 44 for the quantitative and/or qualitative determination of two, three, four, five, six or more components, especially of saccharides, urea, creatinine and/or triglycerides, in multicomponent mixtures, especially in the body fluids of living organisms.

47. (Currently amended) Measuring unit~~, especially measuring cell,~~ comprising at least one ATR body, which includes at least two plane, essentially parallel boundary surfaces, which is transparent or partially transparent to middle infrared radiation (MIR), and which has a refractive index which is higher than that of the medium to be

investigated, which is adjacent to at least one boundary surface, where the measuring unit is pressure-resistant~~, especially to pressures up to 100 bar,~~ and where at least one ~~IR~~ infrared measuring beam can undergo attenuated total reflection at least six times along a measuring section on at least one of the plane, parallel boundary surfaces of the ATR body.

48. (Currently amended) Automatic analyzer, comprising at least an infrared measuring device having at least one measuring unit having at least one ATR body and at least one infrared light source, wherein the measuring unit contains at least one ATR body, which has at least two plane, essentially parallel boundary surfaces, which are transparent or partially transparent to ~~the~~ a measuring radiation and which have a refractive index which is higher than that of the medium to be investigated adjacent to at least one boundary surface, where the ~~IR~~ measuring radiation is middle infrared radiation (MIR) and can undergo attenuated total reflection at least six times on at least one of the plane, parallel boundary surfaces of the at least one ATR body, a hollow body having ~~an~~ one of the at least one ATR body applied tightly in one end region or at ~~one end, especially at~~ the tapered end of the hollow body, or on a surface of the hollow body, which has at least two plane, essentially parallel boundary surfaces, and which is transparent or partially transparent to middle infrared radiation (MIR), and has a refractive index which is higher than that of a medium to be investigated, which is adjacent to at least one boundary surface, where at least one laser beam can be coupled to the one of the at least one ATR body through the inside of the hollow body and at least one ~~IR~~ infrared measuring beam can undergo attenuated total reflection at least six times along the measuring section, on at least one of the plane, parallel boundary surfaces of the at least one ATR body, and/or a measuring unit having the one at least one ATR body which comprises at least two plane, essentially parallel boundary surfaces which is transparent or partially transparent to middle infrared radiation (MIR), and which has a refractive index which is higher than that of the medium to be investigated, which is adjacent to at least one boundary surface, where the measuring unit is pressure-resistant~~, especially to pressures up to 100 bar,~~ and where the at least one ~~IR~~ infrared measuring beam can undergo attenuated total reflection at least six times along a measuring section on at least one of the plane, parallel boundary surfaces of the at least one ATR body, and at least one rinsing device for the measuring unit and/or the at least one ATR body and/or at least one drying device for the measuring unit and/or the at least one ATR body.

49. (Currently amended) ATR body, having one ATR body which comprises at least two plane, essentially parallel boundary surfaces which is transparent or partially

transparent to middle infrared radiation (MIR), and which has a refractive index which is higher than that of the medium to be investigated, which is adjacent to at least one boundary surface, where the measuring unit is pressure-resistant~~, especially to pressures up to 100 bar,~~ and where at least one ~~IR~~ infrared measuring beam can undergo attenuated total reflection at least six times along a measuring section on at least one of the plane, parallel boundary surfaces of the ATR body.

50. (Currently amended) Method, especially for essentially simultaneous, qualitative and/or quantitative determination of components in aqueous multicomponent systems, using one of;

~~an infrared measuring device having at least one measuring unit having at least one ATR body and at least one infrared light source, wherein the measuring unit contains at least one ATR body, which has at least two plane, essentially parallel boundary surfaces, which are transparent or partially transparent to the measuring radiation and which have a refractive index which is higher than that of the medium to be investigated adjacent to at least one boundary surface, where the IR measuring radiation is middle infrared radiation (MIR) and can undergo attenuated total reflection at least six times on at least one of the plane, parallel boundary surfaces of the ATR body,~~

~~a measuring device having one ATR body which comprises at least two plane, essentially parallel boundary surfaces which is transparent or partially transparent to middle infrared radiation (MIR), and which has a refractive index which is higher than that of the medium to be investigated, which is adjacent to at least one boundary surface, where the measuring unit is pressure-resistant, especially to pressures up to 100 bar, and where at least one IR measuring beam can undergo attenuated total reflection at least six times along a measuring section on at least one of the plane, parallel boundary surfaces of the ATR body,~~

an automatic analyzer having at least one measuring unit having at least one ATR body and at least one infrared light source, wherein the measuring unit contains at least one ATR body, which has at least two plane, essentially parallel boundary surfaces, which are transparent or partially transparent to ~~the~~ a measuring radiation and which have a refractive index which is higher than that of the medium to be investigated adjacent to at least one boundary surface, where the ~~IR~~ measuring radiation is ~~middle infrared radiation (MIR)~~ MIR and can undergo attenuated total reflection at least six times on at least one of the plane, parallel boundary surfaces of the at least one ATR body, a hollow body having ~~an~~ one of the

at least one ATR body applied tightly in one end region or at ~~one end, especially at~~ the tapered end of the hollow body, or on a surface of the hollow body, which has at least two plane, essentially parallel boundary surfaces, and which is transparent or partially transparent to MIR ~~middle infrared radiation (MIR)~~, and has a refractive index which is higher than that of a medium to be investigated, which is adjacent to at least one boundary surface, where at least one laser beam can be coupled to the one of the at least one ATR body through the inside of the hollow body and the at least one ~~IR~~ infrared measuring beam can undergo attenuated total reflection at least six times along the measuring section, on at least one of the plane, parallel boundary surfaces of the at least one ATR body, and/or a measuring unit having the one at least one ATR body which comprises at least two plane, essentially parallel boundary surfaces which is transparent or partially transparent to MIR ~~middle infrared radiation (MIR)~~, and which has a refractive index which is higher than that of the medium to be investigated, which is adjacent to at least one boundary surface, where the measuring unit is pressure-resistant~~, especially to pressures up to 100 bar,~~ and where the at least one ~~IR~~ infrared measuring beam can undergo attenuated total reflection at least six times along a measuring section on at least one of the plane, parallel boundary surfaces of the at least one ATR body, and at least one rinsing device for the measuring unit and/or the at least one ATR body and/or at least one drying device for the measuring unit and/or the at least one ATR body, or

an ATR body having one ATR body which comprises at least two plane, essentially parallel boundary surfaces which is transparent or partially transparent to MIR ~~middle infrared radiation (MIR)~~, and which has a refractive index which is higher than that of the medium to be investigated, which is adjacent to at least one boundary surface, where the measuring unit is pressure-resistant~~, especially to pressures up to 100 bar,~~ and where at least one ~~IR~~ infrared measuring beam can undergo attenuated total reflection at least six times along a measuring section on at least one of the plane, parallel boundary surfaces of the ATR body,

including subjecting the middle infrared beam(s) to attenuated total reflection at least six times, on a measuring section at least of one plane boundary surface of the ATR body, which is immediately adjacent or is adjacent through a coating to the medium of the multicomponent system to be investigated.

51. (Previously presented) The infrared measuring device of claim 1, wherein the refractive index is higher than or equal to 1.5.

52. (Previously presented) The infrared measuring device according to Claim 21 wherein the coating has a thickness which is in the range from about 2 μm to about 10 μm.

53. (Previously presented) The urinal of claim 33, wherein the refractive index is higher than or equal to 1.5.

54. (Previously presented) The urinal of claim 33, wherein the laser beam is a beam of a quantum cascade laser.

55. (Previously presented) The toilet of claim 35, wherein the refractive index is higher than or equal to 1.5.

56. (Previously presented) The toilet of claim 35, wherein the laser beam is a beam of a quantum cascade laser.

57. (Previously presented) The urinal of claim 37, wherein the continuous or multiwavelength spectrum is in the middle infrared region.

58. (Previously presented) The toilet of claim 39, wherein the continuous or multiwavelength spectrum is in the middle infrared region.

59. (Previously presented) The hollow body of claim 41, wherein the refractive index is higher than or equal to 1.5.

60. (Previously presented) The cannula of claim 44, wherein the refractive index is higher than or equal to 1.5.

61. (New) The infrared measuring device of claim 1, wherein the one or more quantum cascade lasers can emit electromagnetic radiation of at least two defined frequencies.

62. (New) The infrared measuring device of claim 1, wherein the one or more of the quantum cascade lasers can emit the electromagnetic radiation of the at least one defined frequency or the defined frequency band at a predetermined and defined intensity.

63. (New) The infrared measuring device of claim 7, wherein the two or more of the quantum cascade lasers can emit the electromagnetic radiation of the different frequencies or of the different frequency bands at predetermined and defined intensities.

64. (New) The infrared measuring device of claim 9, wherein the one or more of the quantum cascade lasers can emit the electromagnetic radiation of the different frequencies or of the different frequency bands at predetermined and defined intensities.

65. (New) The infrared measuring device of claim 10, wherein the at least one quantum cascade laser can emit the electromagnetic radiation in the form of the pulses each with a predetermined and defined intensity.

66. (New) The infrared measuring device of claim 19, wherein the at least one measuring unit is pressure-resistant up to pressures of 100 bar.

67. (New) The automatic analyzer of claim 48, wherein the measuring unit is pressure-resistant up to pressures of 100 bar.

68. (New) The ATR body of claim 49, wherein the measuring unit is pressure-resistant up to pressures of 100 bar.

69. (New) The method of claim 50, wherein the measuring unit is pressure-resistant up to pressures of 100 bar.

70. (New) The measuring unit of claim 47, wherein the measuring unit is pressure-resistant up to pressures of 100 bar.

71. (New) The method of claim 25, wherein the qualitatively and/or quantitatively determination of the presence of one or more components selected from the group consisting of saccharides, urea, creatinine, triglycerides, carbon dioxide, protein, alcohols and/or phosphoric acid esters, in nonaqueous or aqueous systems, is performed essentially simultaneous.

72. (New) The infrared measuring device according to Claim 21, wherein the thickness is both smaller than half of the wavelength of the measuring radiation and in the range from about 2 nm to about 25 μm.